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(54) **METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR SERVICE ANONYMITY**

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(57) **ABSTRACT**

Embodiments enable privacy protection for increasing service anonymity. A method comprises receiving a service discovery frame from a wireless device operating synchronously in a neighbor awareness network cluster, including scrambled values associated with service names, each of the scrambled values being a hash of an argument comprising the service name and a component value selected based on a current synchronous time shared with the wireless device. The received scrambled values are compared with scrambled values associated with maintained service names, each being a hash of an argument comprising a valid service name of a known service and a component value selected based on the current synchronous time. If any of the received scrambled values satisfies the comparison with a scrambled value associated with the service name, then the received scrambled value is determined to be associated with the known service.

232   234   236   238   240

NAN SERVICE DISCOVERY FRAME	BROADCAST/ GROUPCAST ADDRESS	SOURCE ADDRESS	CLUSTER ID	SCRAMBLED SERVICE ID	SUBSCRIBE MESSAGE DATA			......	CRC

SUBSCRIBE MESSAGE 140

NAN SERVICE DISCOVERY FRAME 145